

CLAIMS

What is claimed is:

- 1 1. A stent with a tubular support frame (2) that can be
2 widened out from an initial state (A) into a support state (S), in which
3 the support state (2) consists of at least two annular segments (3 – 6)
4 that are formed by struts (7, 8, 9, 10) that endlessly follow each other in
5 a corrugated manner via transitional sections (1, 12) and in which
6 adjacent annular segments (3 – 6) are coupled by connectors (13),
7 characterized in that every second front transitional section (12) on the
8 end-side annular segments (3; 6), viewed in the direction of the
9 longitudinal axis (L) of the stent, has a widened head end (18) that
10 projects axially opposite the adjacent transitional sections (11) and has
11 a convexly rounded front section (19) and concavely rounded throat
12 sections (20, 21) between the head end (18) and the struts (9, 10)
13 connected to the head end (18).
- 1 2. The stent according to Claim 1, characterized in that the
2 head ends (18) are configured in a mushroom shape and that the
3 convex front sections (19) and the concave throat sections (20, 21) are
4 connected to each other by rounded edge sections (22, 23).
- 1 3. The stent according to Claim 1 or 2, characterized in that
2 the throat sections (20, 21) extend at least in areas over the edge-side
3 transitional sections (11) of the adjacent struts (7, 8) in the initial state
4 (A).
- 1 4. The stent according to one of Claims 1 to 3, characterized
2 in that deflection elements (24, 25) for a thread looping around the
3 outside of the support frame (2) are arranged on the end-side annular

4 segments (3, 6), viewed in the direction of the longitudinal axis (L) of
5 the stent.

1 5. The stent according to one of Claims 1 to 4, characterized
2 in that each connector (13, 13') is designed like a strut and has a
3 longitudinal section (14, 14') running substantially parallel to the
4 longitudinal axis L of the stent and comprises a compensation section
5 (15, 15') aligned transversally to the latter and configured in a U or V
6 shape.

1 6. The stent according to Claim 5, characterized in that the
2 U-shaped compensation sections (15, 15') of the connectors (13, 13')
3 are arranged in the area (16) between two axially adjacent, spaced
4 annular segments (3, 4, 5, 6).

1 7. The stent according to one of Claims 1 to 6, characterized
2 in that the connectors (13, 13') extend out from the ridge area (17) of
3 two struts (7, 8) of an annular segment (4, 5) between two struts (7, 8) of
4 the adjacent annular segment (3, 4, 5, 6) up to the transitional section
5 (11) of these struts (7, 8).

1 8. The stent according to one of Claims 1 to 7, characterized
2 in that the connectors (13, 13') are aligned in axial succession.